common and elongated type. The cotype of *obliqua* examined by me has a specimen of *Galerus contortus* Cpr. adhering to it, which, like the bivalve, ranges from Alaska to the Santa Barbara Islands of California. All true Clementias are more or less concentrically undulated and have a deep linguiform pallial sinus, both of which features are absent from the so-called *C. obliqua*.

## NORTHERN IDAHO SHELLS.

## FRANK C. BAKER.

During the month of September the writer visited various portions of Oregon, Washington, and Idaho. Nearly three weeks of this period was spent in Northern Idaho in the beautiful Kootenai Valley and about Lake Pend Oreille. This region is quite unknown conchologically and it was hoped that some fine new species of Oreohelix or Polygyra might be found, comparable perhaps to the Sonorellas, etcetera, that our friend Ferriss has dug from the rocks of the Grand Canyon and the stony wastes of Arizona. Evidently we did not tear enough of the mountains to pieces, and so the pleasing sensation of finding a novelty was denied us. Perhaps the fact that we were examining the sturdy young trees of a newly acquired apple orchard (as well as counting the number of boxes of apples we would sell from these trees!) also accounted for our failure to secure a larger number of species.

Considerable time was given to hunting for snails, and a large number of specimens was secured, but of few species. A more detailed and careful search would doubtless increase this number, but the fact seems evident that the forests of pine, hemlock, spruce, and fir in this region do not harbor a large variety of molluscan life. As this is a new region, the list, though small, may be of value. The orchard tract near McArthur, Idaho is a little over 2000 feet in elevation.

Circinaria vancouverensis (Lea). Kootenai Orchard, McArthur, Idaho. This snail is not common the only specimens obtained (two in number) being found near our sleeping tent, one under the floor and the other beneath a burnt log. The specimens are smaller than those living to the westward, at a lower elevation.

Euconulus trochiformis (Montagu)—fulvus Müll. Specimens were found plentifully on old boards under the wooden floors of the sleeping tents.

Zonitoides arborea (Say). This is the commonest snail here, as in our eastern forests, and is found everywhere in large quantities. Specimens from Idaho and Chicago cannot be distinguished.

Pyramidula solitaria occidentalis (Marts.). This fine shell was found only high up on the mountain sides at an elevation above 4000 feet. At this height they were very abundant for about 500 feet, when they totally disappeared, their ecological elevation being between 4000 and 4500 feet. They were found in hollows in well-wooded ravines at the base of rocky projections, where there was a vigorous growth of shrubs, and in dell-like valleys between mountain spurs. They were always found (in September) buried under leaves and débris, sometimes to the depth of several inches. The color is rich brown or chestnut, with two reddish bands, which are specially conspicuous in the aperture.

These shells were at first somewhat of a puzzle, for they seemed to combine characteristics of both *Oreohelix cooperi* and *Pyramidula solitaria*. Prof. Elrod <sup>1</sup> notes a similarity between these two species near McDonald Lake, Mission Mountains, Montana. To Mr. Wm. Moss, Superintendent of the Kootenai Orchards, is due the discovery of these shells. We had searched diligently for nearly two weeks without finding even a dead specimen, though the mountain side had been ascended for a thousand feet. Upon mentioning the fact to Mr. Moss, he stated that he had seen piles of big shells way up on the mountains. A subsequent climb to this altitude (2000 feet above the orchard) revealed the coveted Helices.

Galba parva (Lea). This little Lymnæid was found only in a small creek at McArthur.

Physa diaphana Tryon. The Orchard, McArthur; Moravia, about eight miles north of McArthur. This is the common Physa and occurs in some localities in great abundance.

Chaos in the *Physidæ* is painfully realized when one attempts to definitely place a member of this family. *Diaphana* was originally described from California, but the species under discussion, though occurring so far to the eastward of this region, conforms to the

<sup>&</sup>lt;sup>1</sup> Bull. University of Montana, Biological Series, No. 3, p. 112.

descriptions and figures of Tryon 1 more closely than to any other, both in size (11-13 mill. long) and form. The collumella is precisely as described by Tryon. It is probable that many of the western Physas have a wide distribution west of the Rocky Mountains.

Planorbis antrosus Conrad. A single specimen of this species was picked up on the shore of Pend Oreille River, in front of the fish-hatching building, across the river from Sandpoint. It is exactly like the variety portagensis Baker, from Maine. Though the two localities are separated by 2500 miles of territory, there is no question concerning the identity of the Idaho shell. Only three other records of bicarinatus (antrosus) are known from Idaho, and these are all from the "panhandle," not far removed from the locality under consideration.<sup>2</sup>

At Glacier National Park, Montana, in a ravine about a mile west of the hotel, a number of dead shells of *Oreohelix cooperi* (W. G. B.) were secured. No living specimens could be found, though special search was carried on for them. Glacier Park Station is about 5000 feet altitude.

## PUBLICATIONS RECEIVED.

Description of Some New Cerionidæ, by C. J. Maynard (Appendix to Records of Walks and Talks with Nature, Vol. v, pp. 177-200, 1913). The object of this notice is to call the attention of conchologists to this somewhat obscure publication, containing over thirty-five so-called new species. The author states in the introduction that "The following announcements of the discovery of certain laws which govern the evolution of groups and the descriptions of some species are here given preliminary to a revision of my monograph of the Cerionidæ." The author's brevity in describing species and his combinations of hyphenated names are something remarkable. The latter method is evidently necessary to emphasize his belief that "a species may become established even though it is still bound to its parent species by living links." Having made no special study of this interesting family, it would be useless for me to comment further, for in doing so I might seriously encroach upon the vocabulary

<sup>&</sup>lt;sup>1</sup>See Tryon, con. Haldeman's Mon., p. 134, pl. 6, fig. 15.

<sup>&</sup>lt;sup>2</sup> See Walker, NAUTILUS, XXIII, p. 25, 1909.